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Customer No.: 23990

PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of  Purva R. Rajkotia
Application No. 10/764,175
Filed January 23, 2004
For : APPARATUS AND METHOD FOR IMPROVED CALL
RELEASE IN A WIRELESS NETWORK
Art Unit : 2617
Examiner : Marisol Figueroa

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
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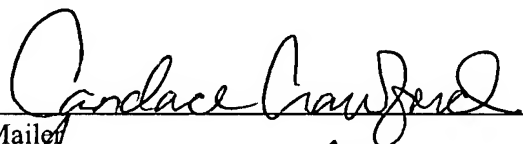
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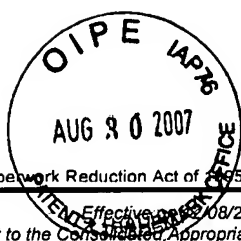
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FEE TRANSMITTAL
For FY 2007☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) 500.00**Complete if Known**

Application Number	10/764,175
Filing Date	January 23, 2004
First Named Inventor	Purva R. Rajkotia
Examiner Name	Marisol Figueroa
Art Unit	2617
Attorney Docket No.	2003.09.005.WS0 (SAMS01-00305)

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Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
_____ - 20 or HP = _____	x _____	= _____				
HP = highest number of total claims paid for, if greater than 20						
Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)			
_____ - 3 or HP = _____	x _____	= _____				
HP = highest number of independent claims paid for, if greater than 3						

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

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SUBMITTED BY

Signature	<i>John T. Mockler</i>	Registration No. (Attorney/Agent)	39,775	Telephone	972-628-3600
Name (Print/Type)	John T. Mockler	Date	27 Aug. 2007		

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Serial No. : 10/764,175
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Group No. : 2617
Examiner : Marisol Figueroa

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
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Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

Applicants herewith respectfully submit that the Examiner's decision of February 9, 2007, finally rejecting Claims 1-19, 21-25, and 27-30 in the present application, should be reversed, in view of the following arguments and authorities. The fee for a Brief on Appeal is enclosed, but please charge any additional necessary fees to Deposit Account No. 50-0208.

08/31/2007 CCHAU1 00000022 10764175

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DOCKET No. 2003.09.005.WS0
U.S. SERIAL No. 10/764,175
PATENT

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Cases

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<i>KSR Int'l v. Teleflex Inc.</i> , 127 S. Ct. 1727, 82 USPQ2d 1385 (2007)	12

Real Party in Interest

The real party in interest, and assignee of this case, is Samsung Electronics Co., Ltd..

Related Appeals or Interferences

To the best knowledge and belief of the undersigned attorney, there are none.

Status of Claims

Claims 1-19, 21-25, and 27-30 are under final rejection, and are each appealed.

Status of Amendments after Final

An amendment after final rejection was entered, and is reflected in the claims appendix. This amendment cancelled claims 20 and 26, adding those limitations to independent claims 19 and 25, respectively, and Claims 19 and 25 are argued below in their amended form.

Summary of Claimed Subject Matter

The following summary refers to disclosed embodiments and their advantages, but does not delimit any of the claimed inventions.

In General

The present application is directed, in general, to wireless networks and, in particular, to a wireless network that uses an improved technique for performing a call release. *Page 1, lines 6-8.*

Support for Independent Claims

Note that, per 37 CFR §41.37, only each of the independent claims and separately-argued dependent claims including “means-plus-function” language involved in the appeal are discussed in this section. In the arguments below, however, various dependent claims may be discussed and distinguished from the prior art. The discussion of the claims is for illustrative purposes, and is not intended to affect the scope of the claims.

Independent claim 1 describes, for use in a wireless network, a base station 101 capable of releasing a call between the base station 101 and a mobile station 111 during a call set-up procedure.

The base station 101 includes a preamble frame detector 260 capable of detecting preamble frames transmitted to the base station 101 by the mobile station 111 during the call set-up procedure. The base station 101 also includes a transmit power controller 270 capable of adjusting a power level of null frames transmitted by the base station during the call set-up procedure. *Page 4, lines 6-22; and Figures 1, 2, and 4-5.*

Independent claim 7 describes wireless network 100 comprising a plurality of base stations 101/102/103, where each of the plurality of base stations is capable of releasing a call between the base station 101 and a mobile station 111 during a call set-up procedure. Each base station 101 includes a preamble frame detector 260 capable of detecting preamble frames transmitted to the base station 101 by the mobile station 111 during the call set-up procedure. Each base station 101 also includes a transmit power controller 270 capable of adjusting a power level of null frames transmitted by the base station 101 during the call set-up procedure. *Page 4, lines 6-22; and Figures 1, 2, and 4-5.*

Independent claim 13 describes, for use in a wireless network 100, a method of operating a base station 101 during a call set-up procedure. The method includes transmitting null frames from the base station 101 to a mobile station 111 during the call set-up procedure (410). The method also includes, during the call set-up procedure, detecting in a preamble frame detector 260 of the base station preamble frames from the mobile station (510). The method also includes adjusting a power level of the null frames transmitted to the mobile station by the base station (540). *Page 4, lines 6-22; page 21, line 15 – page 23, line 4; and Figures 1, 2, and 4-5.*

Independent claim 19 describes, for use in a wireless network, a mobile station 111 capable of releasing a call between the mobile station 111 and a base station 101 during a call set-up procedure. The mobile station 111 includes a main processor 640. The mobile station 111 also includes a null frame monitor program 663 capable of detecting null frames transmitted to the mobile station 111 by the base station 101 during the call set-up procedure, where the null frame monitor

program 663 of the mobile station 111 is capable of detecting at least one missing null frame from the base station 101. The mobile station 111 also includes a transmit power control program 662 capable of adjusting a power level of preamble frames transmitted by the mobile station 111 during the call set-up procedure. In response to detection of the at least one missing null frame from the base station 101, the transmit power control program 662 increases a power level of preamble frames transmitted by the mobile station. *Page 4, lines 6-22; page 21, line 15 – page 23, line 4; and Figures 1, 2, and 4-6.*

Independent claim 25 describes, for use in a wireless network 100, a method of operating a mobile station 111 during a call set-up procedure. The method includes transmitting preamble frames from the mobile station 111 to a base station 101 during the call set-up procedure (720). The method also includes, during the call set-up procedure, detecting in a null frame monitor program 663 of the mobile station 111 null frames from the base station 101 (810). The method also includes detecting at least one missing null frame from the base station 101 (730). The method also includes, in response to the detection of the at least one missing null frame from the base station 101, increasing a power level of preamble frames transmitted by the mobile station 111 (770). The method also includes adjusting a power level of the preamble frames transmitted to the base station 101 by the mobile station 111 (840). *Page 4, lines 6-22; page 21, line 15 – page 23, line 4; page 29, lines 19 – page 33, line 7, and Figures 1, 2, and 4-7.*

Grounds of Rejection to be Reviewed on Appeal

1. Are Claims 1-3, 7-9, and 13-15 unpatentable over “Applicant’s Admitted Prior Art” (“APA”) in view of U.S. Patent No. 6,418,322 to Kim *et al.*, hereinafter “Kim”?
2. Are Claims 4, 5, 10, 11, 16, and 17 unpatentable over U.S. Patent No. 6,418,322 to Kim *et al.*, hereinafter “Kim”, in view of U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*, hereinafter “Brooks”?
3. Are Claims 6, 12, and 18 unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in view of U.S. Patent No. 6,418,322 to Kim *et al.*, hereinafter “Kim”, and U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*, hereinafter “Brooks”, in further view of U.S. Patent Publication No. 2002/0068586 to Chun *et al.*, “Chun”?
4. Are Claims 19, 21, 25, and 27 unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in view of U.S. Patent Publication No. 2004/0029604 to Raaf *et al.*, hereinafter “Raff”?
5. Are Claims 22, 23, 28, and 29 unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in view of U.S. Patent Publication No. 2004/0029604 to Raaf *et al.*, hereinafter “Raff” and further in view of U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*, hereinafter “Brooks”?

6. Are Claims 24 and 30 unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in
view of U.S. Patent Publication No. 2004/0029604 to Raaf *et al.*, hereinafter
“Raff”, U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*,
hereinafter “Brooks”, and further in view of U.S. Patent Publication No.
2002/0068586 to Chun *et al.*, “Chun”?

ARGUMENT

Stated Grounds of Rejection

The rejections outstanding against the Claims are as follows:

In the February 9, 2007 Office Action, Claims 1-3, 7-9, and 13-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Applicant’s Admitted Prior Art” (“APA”) in view of U.S. Patent No. 6,418,322 to Kim *et al.*, hereinafter “Kim”.

In the February 9, 2007 Office Action, Claims 4, 5, 10, 11, 16, and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,418,322 to Kim *et al.*, hereinafter “Kim”, in view of U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*, hereinafter “Brooks”.

In the February 9, 2007 Office Action, Claims 6, 12, and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in view of U.S. Patent No. 6,418,322 to Kim *et al.*, hereinafter “Kim”, and U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*, hereinafter “Brooks”, in further view of U.S. Patent Publication No. 2002/0068586 to Chun *et al.*, “Chun”.

In the February 9, 2007 Office Action, Claims 19-21, and 25-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in view of U.S. Patent Publication No. 2004/0029604 to Raaf *et al.*, hereinafter “Raff”.

In the February 9, 2007 Office Action, Claims 22, 23, 28. and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in view of

U.S. Patent Publication No. 2004/0029604 to Raaf *et al.*, hereinafter “Raff” and further in view of U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*, hereinafter “Brooks”.

In the February 9, 2007 Office Action, Claims 24 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in view of U.S. Patent Publication No. 2004/0029604 to Raaf *et al.*, hereinafter “Raff”, U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*, hereinafter “Brooks”, and further in view of U.S. Patent Publication No. 2002/0068586 to Chun *et al.*, “Chun”.

Applicant respectfully notes that as claims 20 and 26 were cancelled in an after-final amendment, these claims will not be addressed under the fourth stated ground of rejection. However, since limitations of these claims were added to parent claims 19 and 25, respectively, these limitations will be discussed in relation to the parent claims.

Legal Standards

Obviousness: In rejecting claims under 35 U.S.C. § 103(a), the examiner bears the initial burden of establishing a *prima facie* case of obviousness. (*In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). See also *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984)). It is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. (*Id.* at 1073, 5 USPQ2d at 1598). In so doing, the examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), *viz.*, (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the art. In addition to these factual determinations, the examiner must also provide “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (*In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir 2006) (cited with approval in *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007)).

In the Advisory Action, the Examiner misapplies the decision in *In re Hutchison*, 154 F.2d 135 (CCPA 1946) in order to ignore limitations including the phrase “capable of”. In *Hutchinson*, the court did not consider the preamble phrase “adapted for use in the fabrication of a metal template or the like” to “constitute a limitation in any patentable sense.” In contrast, the “capable of” limitation in the present application imposes a capability requirement on the power controller of claim 1 – i.e., the power controller must be able to adjust a power level of null frames transmitted by said base station during the call set-up procedure, as discussed below. The Board of Patent Appeals

and Interferences considered this very issue in its non-precedential decision in *Ex parte Prall*, Appeal No. 2003-1556. While the limitation at issue in *Hutchinson* was in the preamble and merely recited an intended use, the limitation at issue in *Prall* imposed a capability requirement on the respective claim element – like that in the current application.

Analysis of Examiner's Rejection

Each of the rejections relies on the teachings of what the Examiner characterizes as “Applicant’s Admitted Prior Art” or “APA”, in combination with up to three other references. As described below, however, each claim directly or indirectly includes limitations not taught by any art of record, alone or in combination.

First Ground of Rejection

Claims 1-3, 7-9, and 13-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Applicant’s Admitted Prior Art” (“APA”) in view of U.S. Patent No. 6,418,322 to Kim *et al.*, hereinafter “Kim”.

Applicant notes that Kim and the present application are commonly assigned.

Claims 1, 7, and 13

As these independent claims include similar limitations, they similarly distinguish over any combination of APA and Kim, and may be considered together.

Claims 1 and 7 require a transmit power controller capable of adjusting a power level of null frames transmitted by said base station during the call set-up procedure. Claim 13 requires, during a call set-up procedure, adjusting a power level of said null frames transmitted to said mobile station by said base station. The Examiner concedes that this is not taught by APA. This is also not disclosed or suggested by Kim. Kim does disclose:

A method of forward power control in a cellular mobile telecommunication system having a base station and a mobile station, a base station receives an information about the quality of a forward link from a mobile station and controls the transmission power in the forward link. If information about the quality of the forward link is not obtained within a predetermined period due to deterioration in the forward link, the base station changes its parameters of the forward power control. As a result, the digital gain of transmission power of the forward link is increased to improve the deteriorated quality of the forward link and to carry out the forward power control. Simultaneously, the base station decreases the digital gain of

transmission power more rapidly to saving a power consumption and to reduce interference to other radio channels. *Abstract*

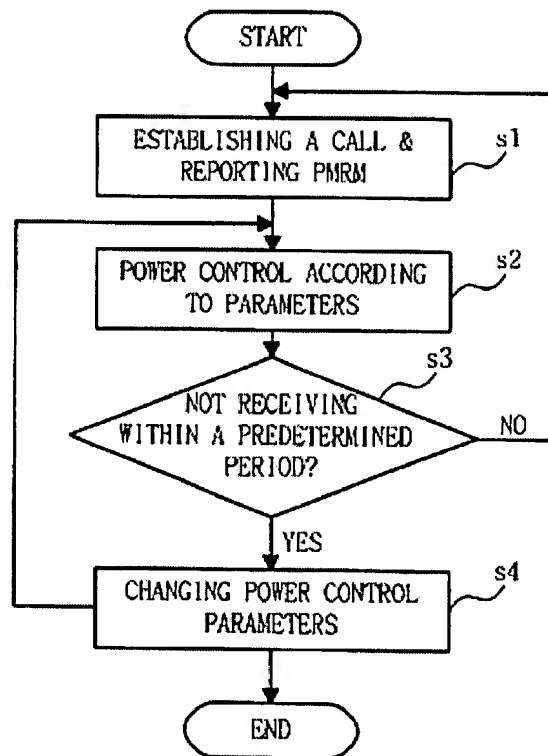
It is clear that while Kim does discuss power control on a forward channel, nothing in Kim discusses any capability to do so during the call set-up procedure, as claimed. Kim teaches a method for improving forward power control in cellular mobile telecommunication system. According to the Kim's disclosed methods, a call is first established between a mobile station and a base station. During the call, the forward power is controlled by decreasing the digital gain of the base station and increasing the digital gain according to information about the quality of the forward link received from the mobile station. Kim discloses that the mobile station periodically (or when the number of non-proper frames received from the base station falls under a predetermined threshold value) transmits a power measurement report message (PMRM) as a forward power control signal.

For example, Kim teaches

FIG. 4 illustrates a flow chart of a method for forward power control according to the present invention, and FIG. 5 illustrates a detailed flow chart illustrating the power control method according to the FIG.4. The method according to the present invention includes a step (s1) of establishing a call between a base station and a mobile station and reporting at the mobile station a PMRM to the base station periodically or non-periodically, a step (s2) of controlling the forward power control according to parameters in the received PMRM, a step (s3) of checking further whether a PMRM is received to the base station within a predetermined time, and a step (s4) of changing the

parameters and returning to the step (s2). *Col. 5, line 60 – col. 6, line 5, emphasis added.*

Kim illustrates this process in Figure 4:



It is clear that Kim's system requires that the call already be established before any power control takes place. This is contrary to the claimed invention, where the power level of the null frames can be or is adjusted during the call set-up procedure. No art of record teaches or suggests to one of skill in the art, having ordinary creativity and common sense, to adjust a power level of null frames transmitted by said base station during said call set-up procedure, as in each of these independent claims, or any base station or controller capable of doing so. No art of record teaches or

suggests that this is possible or desirable. Certainly no art of record, along or in combination, teaches a base station having a transmit power controller capable of adjusting a power level of null frames transmitted by said base station during said call set-up procedure, in the contest of claims 1 and 7.

Applicant respectfully notes that this feature, as performed during call setup, is not even addressed by the Examiner in the final Office Action.

As this feature of claims 1, 7 and 13 is not taught or suggested by any art of record, alone or in combination, the rejection of these claims, and dependent claims 2-3, 8-9, and 14-15 should be reversed.

Claims 2-3, 8-9, and 14-15

These claims each directly or indirectly include similar limitations, and so may be considered together. The limitations of the respective parent claims, and related arguments above, apply here as well and are hereby incorporated by reference.

Each of these claims requires, in response to detection of said at least one missing preamble frame from the mobile station, increasing a power level of null frames transmitted by said base station. This is not taught or suggested by the art of record.

The Examiner's rejection of these claims, in addition to the limitations of the respective parent claims, relies on an unsupported statement by the Examiner that the power measurement report messages (PMRMs) described by Kim are "fairly characterized as preamble frames since the

MS transmit them in response to the reception of forward/null frames transmitted by the BS” (*Office Action page 4*). This assertion by the Examiner is simply without basis in Kim. Nothing in Kim teaches or suggests that the PMRM are preamble frames or their equivalents, and nothing in Kim teaches that they are transmitted in response to the reception of null frames.

The rejection of these claims should be reversed.

Second Ground of Rejection

Claims 4, 5, 10, 11, 16, and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,418,322 to Kim *et al.*, hereinafter “Kim”, in view of U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*, hereinafter “Brooks”.

Applicant respectfully notes that the statement of rejection of these claims does not include “APA”, but that the Examiner argues APA in support of his rejection. Applicant respectfully suggests the Examiner may wish to include APA in this ground of rejection (should she maintain it) to correct this inconsistency. Simply noting that some other rejections included APA is not sufficient to correct this deficiency.

Claims 4, 5, 10, 11, 16, and 17

These claims each directly or indirectly include similar limitations, and so may be considered together. The limitations of the respective parent claims, and related arguments above, apply here as well and are hereby incorporated by reference.

As the limitations of these claims are not taught or suggested by any combination of the art in combination with the limitations of the parent claims, including in particular the limitations argued above with respect to power control functions during call setup, the rejection of these claims should be reversed.

Third Ground of Rejection

Claims 6, 12, and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in view of U.S. Patent No. 6,418,322 to Kim *et al.*, hereinafter “Kim”, and U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*, hereinafter “Brooks”, in further view of U.S. Patent Publication No. 2002/0068586 to Chun *et al.*, “Chun”.

Claims 6, 12, and 18

These claims each directly or indirectly include similar limitations, and so may be considered together. The limitations of the respective parent claims, and related arguments above, apply here as well and are hereby incorporated by reference.

As the limitations of these claims are not taught or suggested by any combination of the art in combination with the limitations of the parent claims, even in this remarkable 4-way rejection, including in particular the limitations argued above with respect to power control functions during call setup, the rejection of these claims should be reversed.

Fourth Ground of Rejection

Claims 19-21, and 25-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in view of U.S. Patent Publication No. 2004/0029604 to Raaf *et al.*, hereinafter “Raff”. Claims 20 and 26 were cancelled after final rejection, and their limitations incorporated into parent claims 19 and 25, respectively.

Claims 19, 21 25, and 27

As these independent claims include similar limitations, they similarly distinguish over any combination of APA and Raff, and may be considered together. Claims 19 and 25 were amended after final rejection to include limitations previously found in claims 20 and 26.

Claims 19 and 25 each require that the power level of preamble frames transmitted by the mobile station is increased in response to the detection of at least one missing null frame from the base station, and claims 21 and 27 therefore indirectly include this same limitation. None of the cited references, alone or in combination, teaches or suggests this feature.

Raaf does teach in paragraph 0037 (reproduced below) that power can be increased when there is “no reception of an acknowledgement message”, it does not teach or suggest that this can or should be done in response to the detection of at least one missing null frame from the base station. Nothing in Raaf teaches or suggests that a null frame can or should be used as the described “acknowledgement message”.

Further, Raaf teaches away from increasing power when at least one “acknowledgement message” is not received:

If the open-loop power control estimates a lower initial power for the preamble, this indicates that a preamble sent with this initial power should be receivable with high probability by a base station; however, an unsuccessful transmission (no reception of an acknowledgement message) of a preamble could also be caused by a collision on the transmission channel, an abrupt short-term interference, a short-term high attenuation or an error in the transmission of the acknowledgement message. This is why it is appropriate to retransmit the preamble with the same low power. *Paragraph 0037.*

Clearly, here, when there is “no reception of an acknowledgement message ... it is appropriate to retransmit preamble with the same low power” (emphasis added).

As these features of claims 19 and 25 (as amended) are not taught or suggested by any art of record, alone or in combination, the obviousness rejection of claims these claims, and their dependents, should be reversed.

Fifth Ground of Rejection

Claims 22, 23, 28. and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in view of U.S. Patent Publication No. 2004/0029604 to Raaf *et al.*, hereinafter “Raff” and further in view of U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*, hereinafter “Brooks”.

Claims 22, 23, 28. and 29

These claims each directly or indirectly include similar limitations, and so may be considered together. The limitations of the respective parent claims, and related arguments above, apply here as well and are hereby incorporated by reference.

As the limitations of these claims are not taught or suggested by any combination of the art in combination with the limitations of the parent claims, including in particular the limitations argued above with respect to increasing the power level of preamble frames transmitted by the mobile station in response to the detection of at least one missing null frame from the base station, the rejection of these claims should be reversed.

Further, in this rejection, the Examiner adds Brooks, which actually teaches away from the limitations of the independent claims. Brooks also discusses “acknowledgement” messages, and indicates that these are clearly not null frames, but rather specific acknowledgements to other specific messages. For example, Brooks teaches:

If the reverse link is corrupted at the same time the mobile station 106 attempts to send a message that requires an acknowledgement (i.e., pilot strength measurement message), the mobile station 106 will

attempt to resend the message a set number of times (typically 9). If an acknowledgement is not received from the base station 104, the mobile station 106 ends reverse link transmission and exits the CDMA conversation state for system selection with a loss of service indication. ... The base station 104 may also detect a dropped call if the mobile station 106 is not acknowledging a message requiring acknowledgement. *Paragraphs 0022-0023.*

The rejection of these claims should be reversed.

Sixth Ground of Rejection

Claims 24 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Applicant’s Admitted Prior Art” (“APA”), in view of U.S. Patent Publication No. 2004/0029604 to Raaf *et al.*, hereinafter “Raff”, U.S. Patent Publication No. 2002/0090947 to Brooks *et al.*, hereinafter “Brooks”, and further in view of U.S. Patent Publication No. 2002/0068586 to Chun *et al.*, “Chun”.

Claims 24 and 30

These claims each directly or indirectly include similar limitations, and so may be considered together. The limitations of the respective parent claims, and related arguments above, apply here as well and are hereby incorporated by reference.

As the limitations of these claims are not taught or suggested by any combination of the art in combination with the limitations of the parent claims, including in particular the limitations argued above with respect to increasing the power level of preamble frames transmitted by the mobile station in response to the detection of at least one missing null frame from the base station, the rejection of these claims should be reversed.

Further, as describes above, Brooks actually teaches away from the limitations of the independent claims. Brooks also discusses “acknowledgement” messages, and indicates that these are clearly not null frames, but rather specific acknowledgements to other specific messages. The rejection of these claims should be reversed.

REQUESTED RELIEF

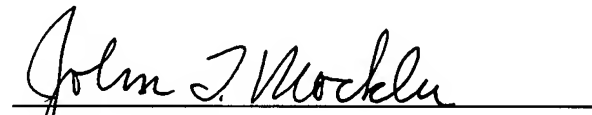
The Board is respectfully requested to reverse the outstanding rejections and return this application to the Examiner for allowance.

Respectfully submitted,

MUNCK BUTRUS, P.C.

Date: 27 Aug. 2007

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ATTORNEY FOR APPELLANT

DOCKET NO. 2003.09.005.WS0
Customer No. 23990

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Purva R. Rajkotia
Serial No. : 10/764,175
Filed : January 23, 2004
For : APPARATUS AND METHOD FOR IMPROVED CALL
RELEASE IN A WIRELESS NETWORK
Group No. : 2617
Examiner : Marisol Figueroa

APPENDIX A -
Text of Claims on Appeal

1. (Previously Presented) For use in a wireless network, a base station capable of releasing a call between said base station and a mobile station during a call set-up procedure, said base station comprising:

a preamble frame detector capable of detecting preamble frames transmitted to said base station by said mobile station during said call set-up procedure; and

a transmit power controller capable of adjusting a power level of null frames transmitted by said base station during said call set-up procedure.

2. (Original) The base station as set forth in Claim 1 wherein said preamble frame detector of said base station is capable of detecting at least one missing preamble frame from said mobile station; and

wherein in response to said detection of said at least one missing preamble frame from said mobile station, said transmit power controller increases a power level of null frames transmitted by said base station.

3. (Original) The base station as set forth in Claim 2 wherein said transmit power controller increases said power level of null frames by a step size having a configurable value.

4. (Original) The base station as set forth in Claim 2 wherein said base station further comprises:

a fade timer having a configurable value;

wherein said base station starts said fade timer when said preamble frame detector detects at least one missing preamble frame from said mobile station; and

wherein said base station stops sending said null frames to said mobile station when said preamble frame detector detects at least one missing preamble frame from said mobile station.

5. (Original) The base station as set forth in Claim 4 wherein said base station releases said call between said base station and said mobile station when one of: said fade timer expires and a maximum power level for said null frames is exceeded.

6. (Original) The base station as set forth in Claim 4 wherein said configurable value of said fade timer is less than five seconds.

7. (Previously Presented) A wireless network comprising a plurality of base stations, each of said plurality of base stations capable of releasing a call between said base station and a mobile station during a call set-up procedure, wherein said each base station comprises:

a preamble frame detector capable of detecting preamble frames transmitted to said base station by said mobile station during said call set-up procedure; and

a transmit power controller capable of adjusting a power level of null frames transmitted by said base station during said call set-up procedure.

8. (Original) The wireless network as set forth in Claim 7 wherein said preamble frame detector of said each base station is capable of detecting at least one missing preamble frame from said mobile station; and

wherein in response to said detection of said at least one missing preamble frame from said mobile station, said transmit power controller increases a power level of null frames transmitted by said base station.

9. (Original) The wireless network as set forth in Claim 8 wherein said transmit power controller increases said power level of null frames by a step size having a configurable value.

10. (Original) The wireless network as set forth in Claim 8 wherein said each base station further comprises:

a fade timer having a configurable value;

wherein said each base station starts said fade timer when said preamble frame detector detects at least one missing preamble frame from said mobile station; and

wherein said each base station stops sending said null frames to said mobile station when said preamble frame detector detects at least one missing preamble frame from said mobile station.

11. (Original) The wireless network as set forth in Claim 10 wherein said each base station releases said call between said each base station and said mobile station when one of: said fade timer expires and a maximum power level for said null frames is exceeded.

12. (Original) The wireless network as set forth in Claim 10 wherein said configurable value of said fade timer is less than five seconds.

13. (Previously Presented) For use in a wireless network, a method of operating a base station during a call set-up procedure, the method comprising the steps of:

transmitting null frames from said base station to a mobile station during the call set-up procedure;

during the call set-up procedure, detecting in a preamble frame detector of said base station preamble frames from said mobile station; and

adjusting a power level of said null frames transmitted to said mobile station by said base station.

14. (Original) The method as set forth in Claim 13 further comprising the steps of:

detecting at least one missing preamble frame from said mobile station; and

in response to said detection of said at least one missing preamble frame from said mobile station, increasing a power level of null frames transmitted by said base station.

15. (Original) The method as set forth in Claim 14 wherein said power level of said null frames is increased by a step size having a configurable value.

16. (Original) The method as set forth in Claim 14 further comprising the steps of:
providing in said base station a fade timer that has a configurable value;
starting said fade timer when said preamble frame detector detects at least one missing preamble frame from said mobile station; and
stopping a transmission of said null frames to said mobile station when said preamble frame detector detects at least one missing preamble frame from said mobile station.

17. (Original) The method as set forth in Claim 16 further comprising the step of:
releasing a call between said base station and said mobile station when one of: said fade timer expires and a maximum power level for said null frames is exceeded.

18. (Original) The method as set forth in Claim 16 wherein said configurable value of said fade timer is less than five seconds.

19. (Previously Presented) For use in a wireless network, a mobile station capable of releasing a call between said mobile station and a base station during a call set-up procedure, said mobile station comprising:

a main processor;

a null frame monitor program capable of detecting null frames transmitted to said mobile station by said base station during said call set-up procedure, wherein said null frame monitor program of said mobile station is capable of detecting at least one missing null frame from said base station; and

a transmit power control program capable of adjusting a power level of preamble frames transmitted by said mobile station during said call set-up procedure, wherein in response to said detection of said at least one missing null frame from said base station, said transmit power control program increases a power level of preamble frames transmitted by said mobile station.

20. (Cancelled)

21. (Previously Presented) The base station as set forth in Claim 19 wherein said transmit power control program increases said power level of said preamble frames by a step size having a configurable value.

22. (Previously Presented) The mobile station as set forth in Claim 19 wherein said mobile station further comprises:

a fade timer having a configurable value;

wherein said mobile station starts said fade timer when said null frame monitor program detects at least one missing null frame from said base station; and

wherein said mobile station increases power to said preamble frames in relation to a detected number of missing null frames when said null frame monitor program detects missing null frames from said base station.

23. (Original) The mobile station as set forth in Claim 22 wherein said mobile station releases said call between said mobile station and said base station when one of: said fade timer expires and a maximum power level for said preamble frames is exceeded.

24. (Original) The mobile station as set forth in Claim 22 wherein said configurable value of said fade timer is less than five seconds.

25. (Previously Presented) For use in a wireless network, a method of operating a mobile station during a call set-up procedure, the method comprising the steps of:

transmitting preamble frames from said mobile station to a base station during the call set-up procedure;

during the call set-up procedure, detecting in a null frame monitor program of said mobile station null frames from said base station;

detecting at least one missing null frame from said base station; and

in response to said detection of said at least one missing null frame from said base station, increasing a power level of preamble frames transmitted by said mobile station; and

adjusting a power level of said preamble frames transmitted to said base station by said mobile station.

26. (Cancelled)

27. (Previously Presented) The method as set forth in Claim 25 wherein said power level of said preamble frames is increased by a step size having a configurable value.

28. (Previously Presented) The method as set forth in Claim 25 further comprising the steps of:

providing in said mobile station a fade timer that has a configurable value;

starting said fade timer when said null frame monitor program detects at least one missing null from said base station; and

increasing power to said preamble frames in relation to a detected number of missing null frames when said null frame monitor program detects missing null frames from said base station.

29. (Original) The method as set forth in Claim 28 further comprising the step of:

releasing a call between said mobile station and said base station when one of: said fade timer expires and a maximum power level for said preamble frames is exceeded.

30. (Original) The method as set forth in Claim 28 wherein said configurable value of said fade timer is less than five seconds.

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RELEASE IN A WIRELESS NETWORK
Group No. : 2617
Examiner : Marisol Figueroa

APPENDIX B -
Copy of Formal Drawings

Appeal Brief – Serial No. 10/764,175 Appendix B

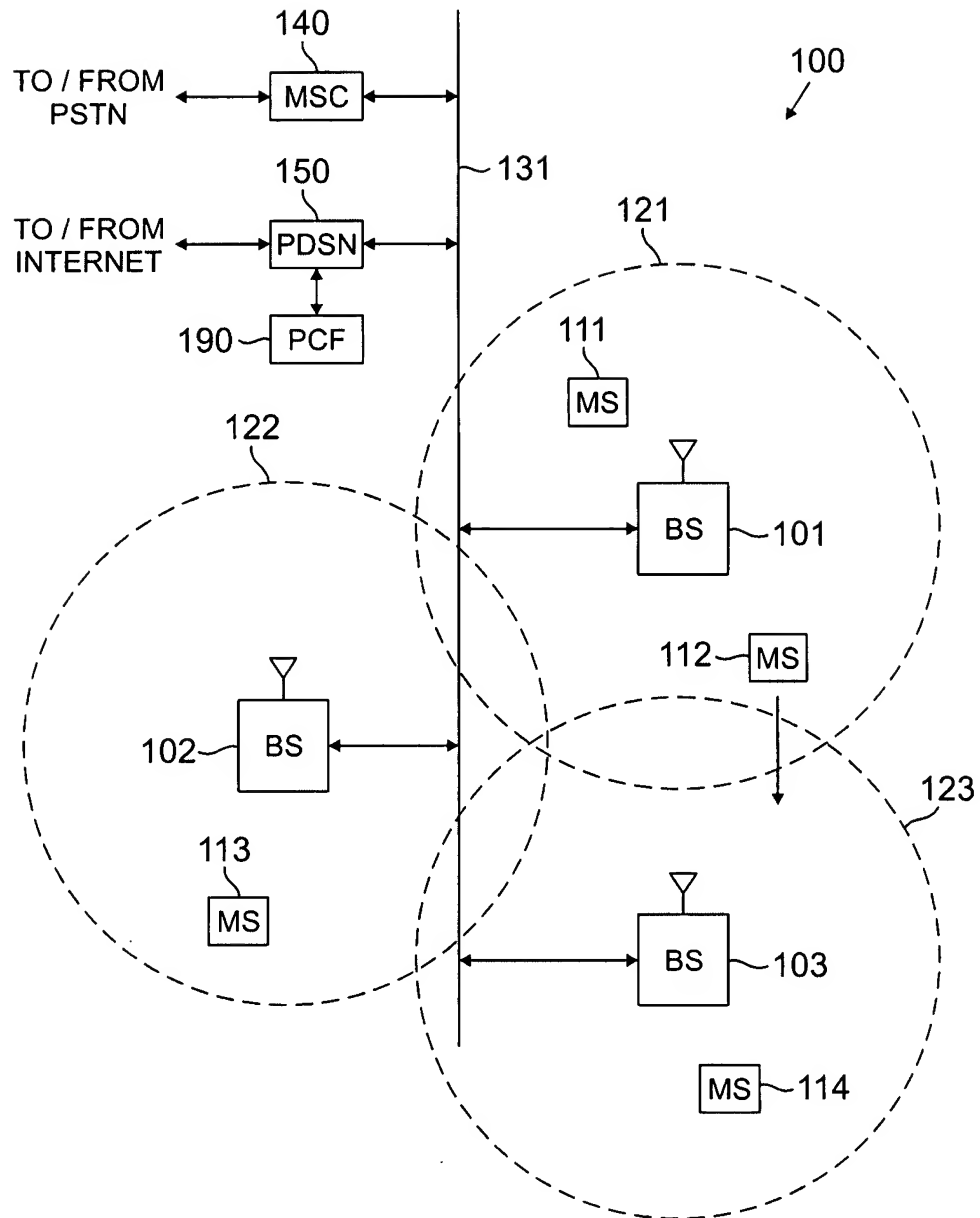


FIG. 1

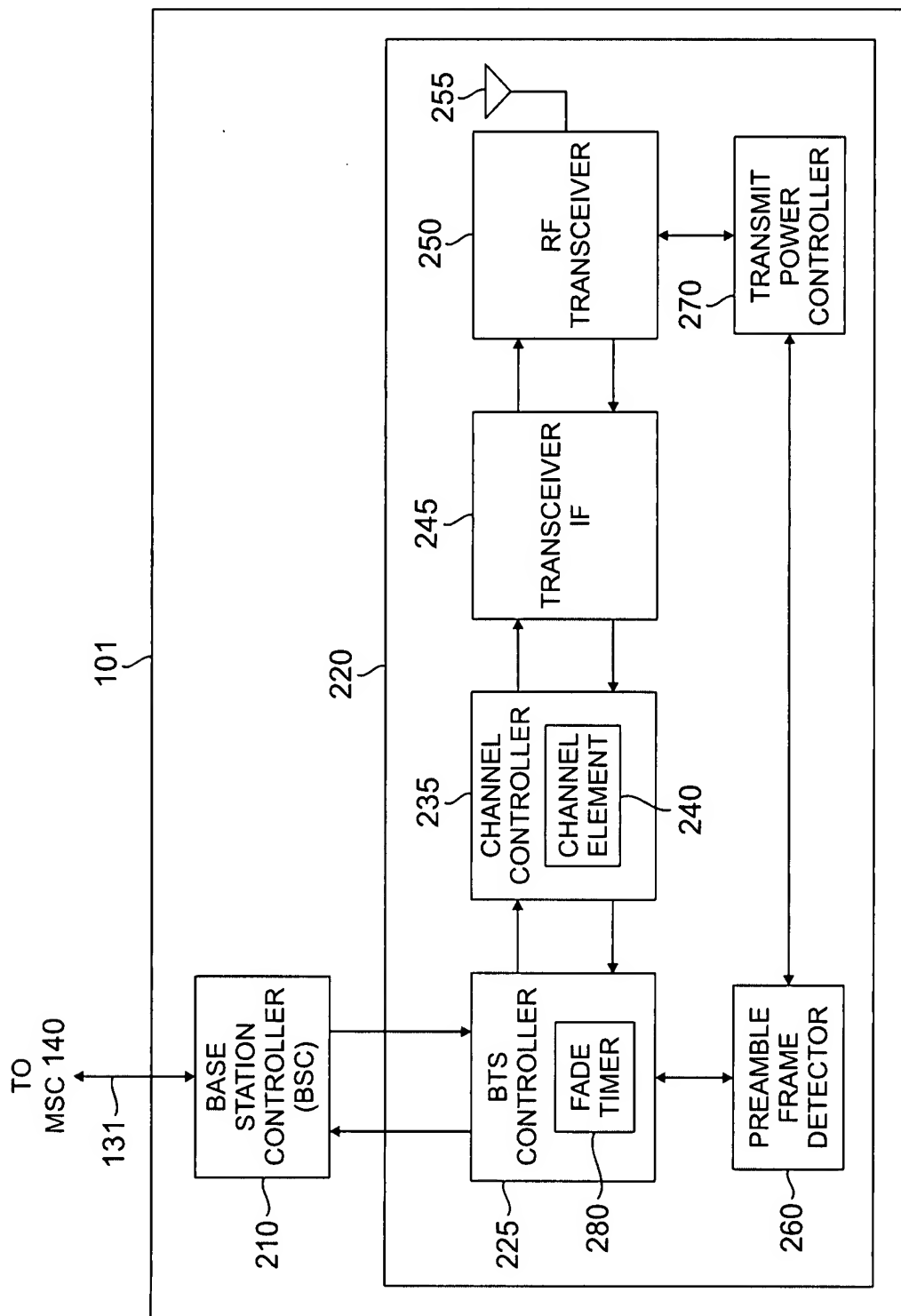


FIG. 2

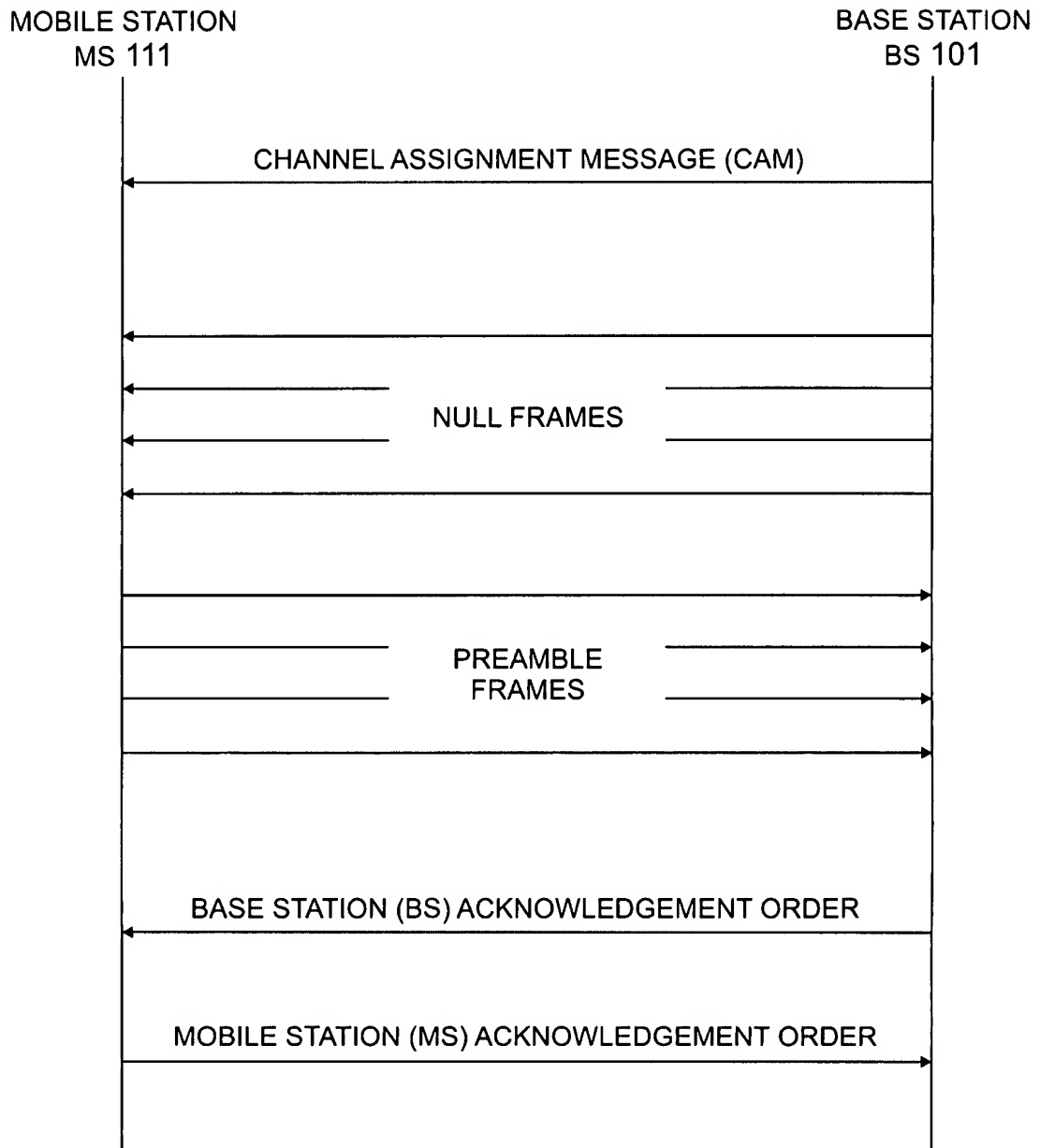


FIG. 3
(PRIOR ART)

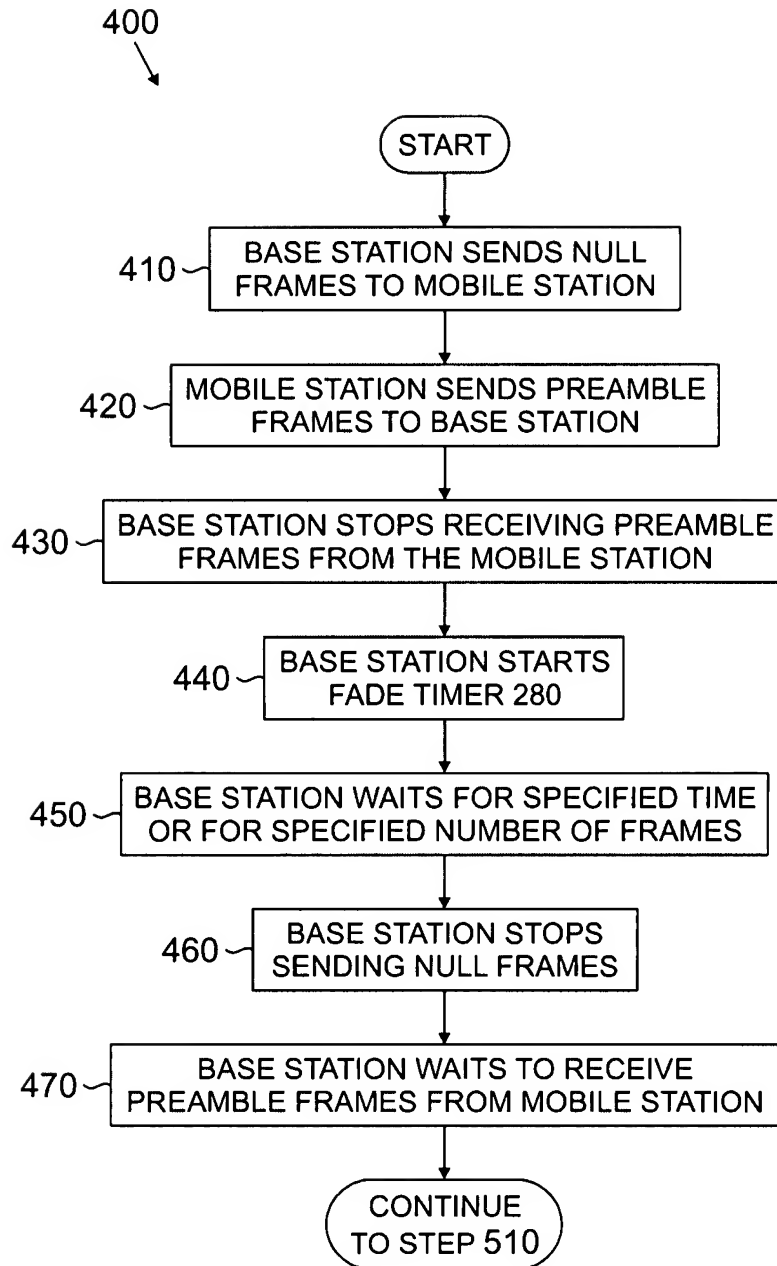


FIG. 4

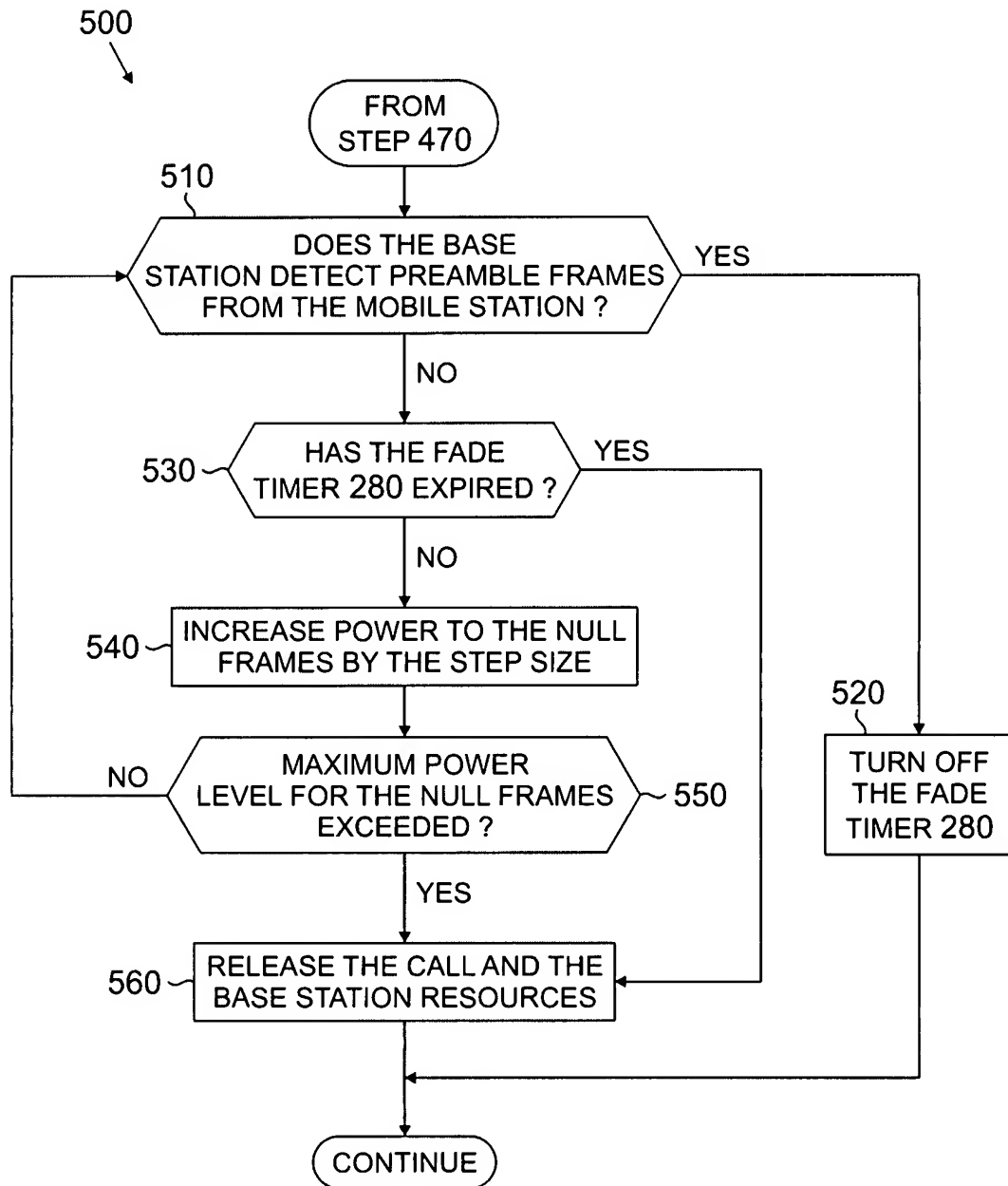


FIG. 5

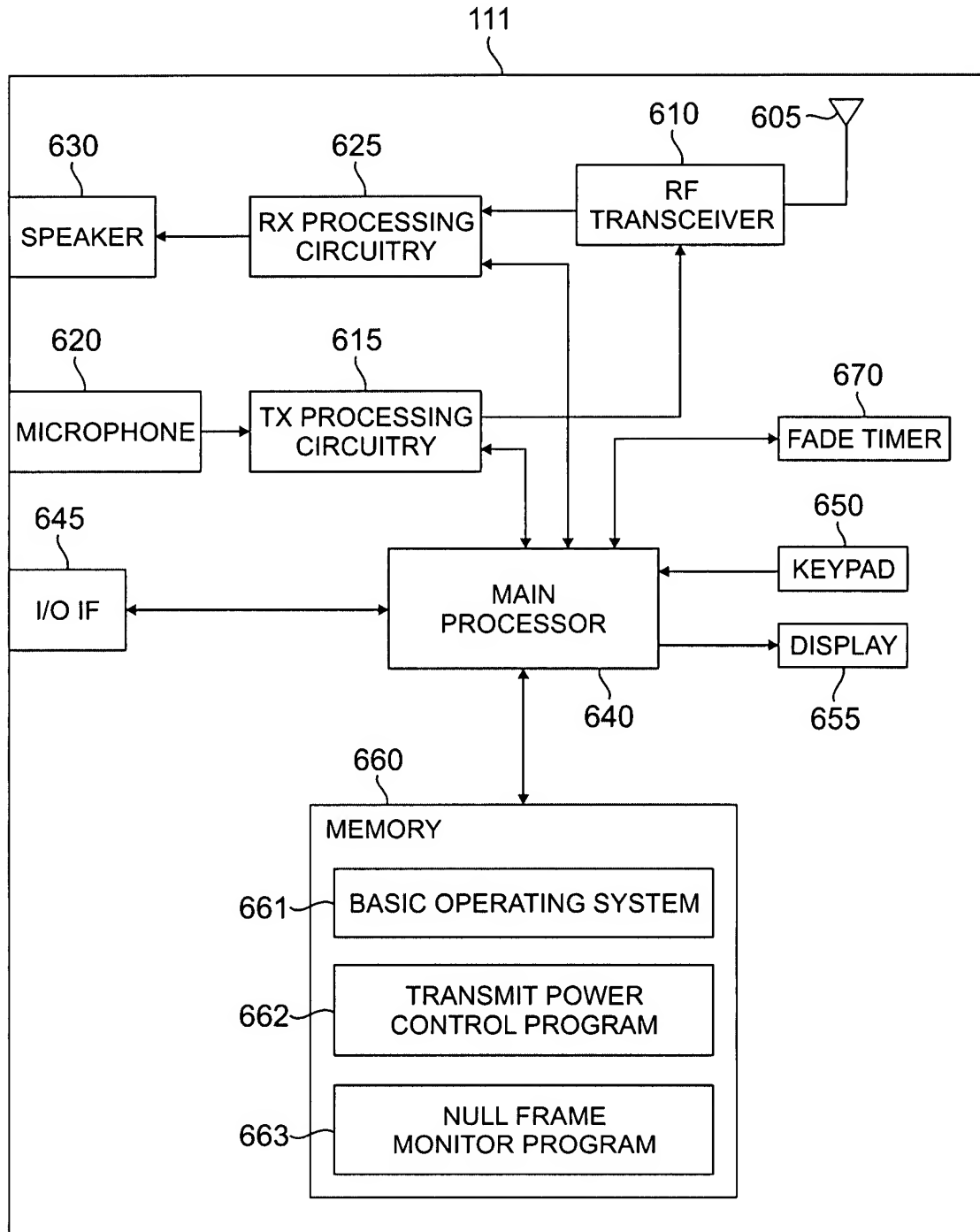


FIG. 6

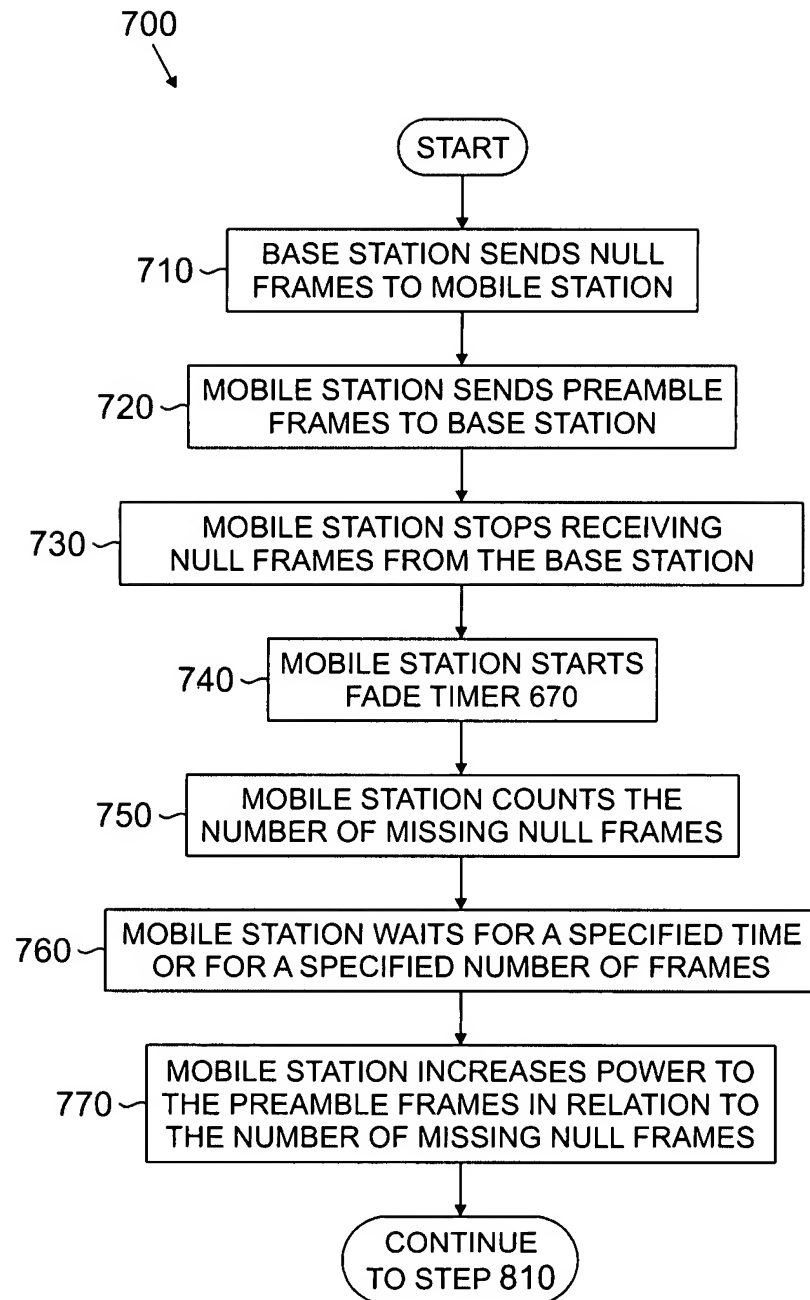


FIG. 7

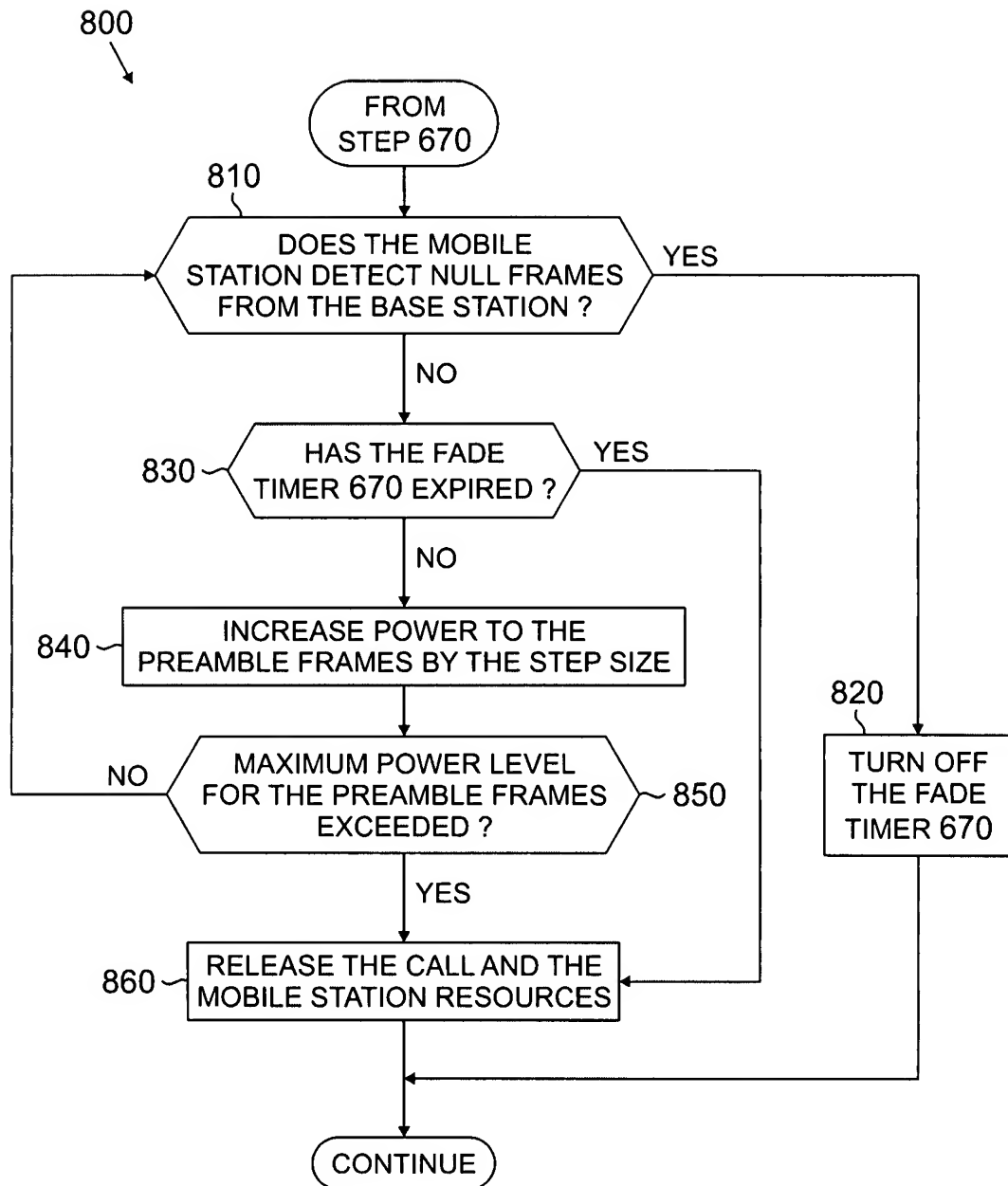


FIG. 8

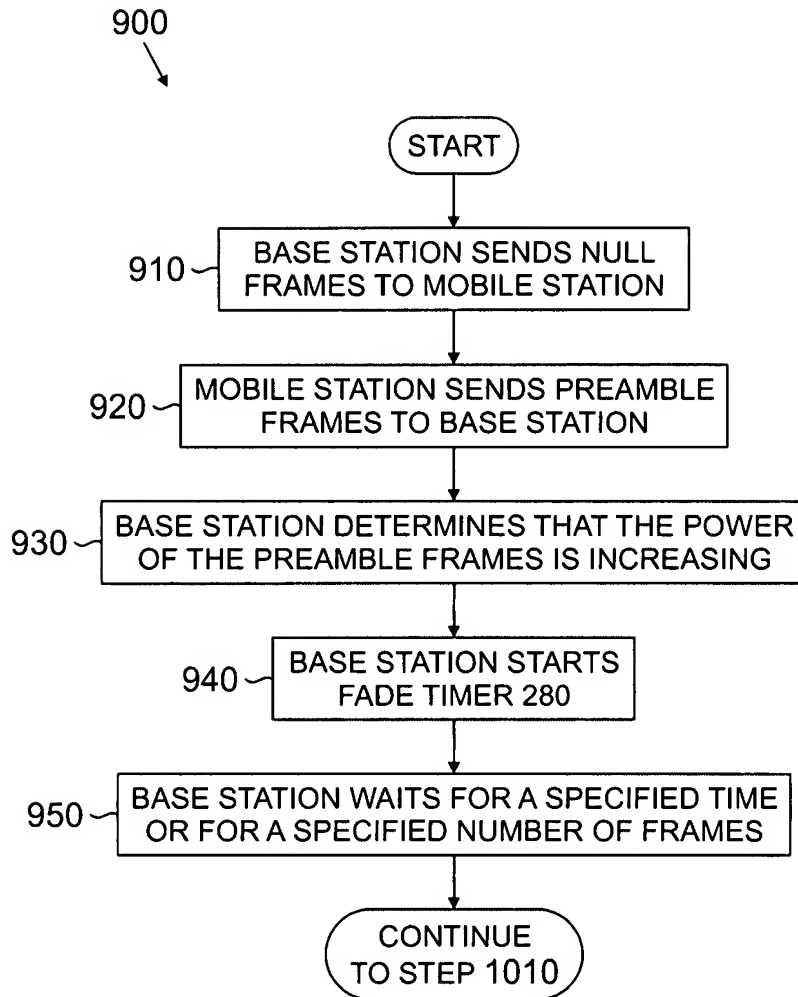


FIG. 9

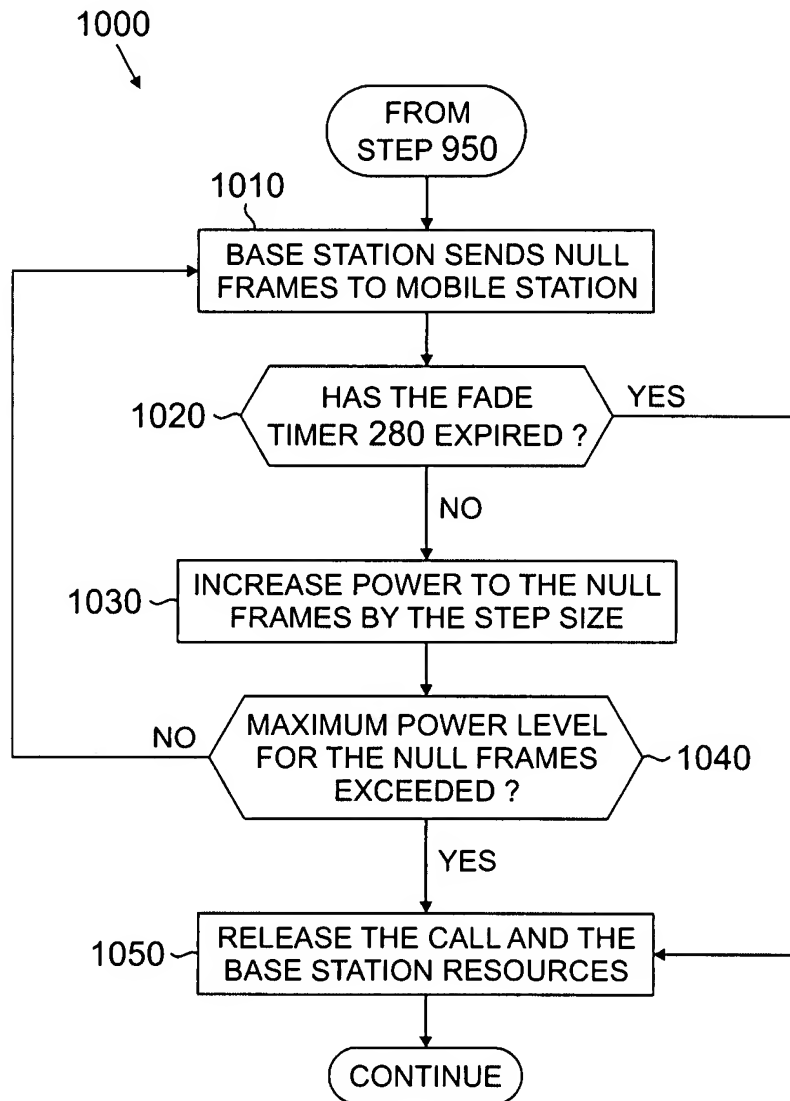
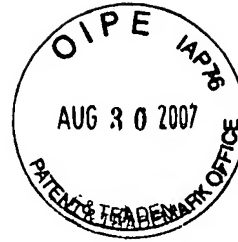


FIG. 10

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APPENDIX C -
Evidence Appendix

Not Applicable – No other evidence was entered.

Appeal Brief – Serial No. 10/764,175Appendix C

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APPENDIX D -
Related Proceedings Appendix

Not Applicable – To the best knowledge and belief of the undersigned attorney, there are none.

Appeal Brief – Serial No. 10/764,175Appendix D